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REMARKS

Claims 4-6 have been previously presented and have been rejected in view of a newly cited reference (MOY). Reconsideration of the same claims is respectfully requested in light of the following remarks.

Claims 4-6 have been rejected under 35 U.S.C. § 103 as being unpatentable over MOY in view of WALLACE.

As described in the specification, in the prior art, motor vehicle data processing tasks have been divided into two kinds of tasks (called control tasks and telematic tasks in the claims and also called static and dynamic tasks in the specification), which normally in the motor vehicle environment have been handled separately by two different hardware platforms. Prior art attempts in other fields to handle both of these types of tasks with only one operating system has led to disadvantages that cannot be tolerated in the motor vehicle environment.

In accordance with the present invention, however, these two kinds of tasks are handled by one operating system without the prior art disadvantages. More specifically, the disadvantages of the prior art have been overcome by putting control tasks into a suspended mode when they complete while telematic tasks are terminated when they complete. This has been achieved in particular by

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extending the kernel of an operating system that destroys tasks when they complete (i.e., one intended to handle dynamic tasks). The kernel extension allows the operating system kernel to handle telematic tasks in usual fashion (i.e. terminate them when complete) while also handling control tasks differently by suspending them instead when they complete.

A new reference MOY has been cited. MOY describes an automated magnetic tape cartridge system for massive data storage and retrieval in a main frame computer system. The Examiner has focused upon the handling of tasks by the LMU (Library Management Unit) functional software. Two kinds of tasks are handled by the LMU, namely static tasks and dynamic tasks. The static tasks are created at initialization and are never deleted. A dynamic task is created upon demand, exists until it is completed and then is deleted (i.e., terminated).

In a broad sense the MOY system handles the same two kinds of tasks in the same way as applicants' system, namely by terminating dynamic tasks that complete and only suspending static tasks that complete. However, the MOY system is not a motor vehicle onboard system and there is no suggestion that it is suitable for handling motor vehicle onboard control tasks (i.e., motor vehicle static tasks). In order to emphasize this and to clearly

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distinguish over operating systems (such as MOY) that are not motor vehicle onboard systems, the terms motor vehicle telematic tasks and motor vehicle control tasks have been used in the claims.

The Examiner recognizes that MOY does not pertain to a motor vehicle operating system and therefore also cites WALLACE in combination.

WALLACE describes a motor vehicle operating system that is multi-tasking. Tasks are suspended before they are completed in favor of making another task active, as in all multi-tasking operating systems. However, it is not clear that one kind of task is handled differently when it has been completed than another kind of task is handled when completed. It isn't even clear that WALLACE contemplates an integration of telematic tasks with control tasks. What is being handled appears to be "vehicle processes", which to a person of ordinary skill suggests control tasks (i.e., static tasks). There is a description of a second kind of process, namely the algorithm processes 28, but this kind of process is not even handled by the kernel 18 (see col. 4, lines 13-20) of the processor. Algorithm processes are handled even outside of the multitasking use of the processor. The example described is the algorithm process that identifies a collision and handles seat belt pretensioning, air bag deployment, etc. Clearly the

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collision system does not wait to be allocated computer resources, but instead immediately takes all computer resources for handling the collision processes.

The Examiner suggests that WALLACE handles static control tasks with event queues and telematic tasks as vehicle processes. However, the Examiner is identifying the same thing. Vehicle processes 24 each perform a specific vehicle function (col.3, line 46) and are implemented with a multitasking processor that is driven by a state machine 22 instead of interrupts. Each event queue corresponds to a particular process 24 (Abstract, lines 3-4).

Telematic functions that are identified in applicants' specification include emergency calls, breakdown calls, traffic info (page 2, lines 4-5) and mayday functions, breakdown functions, GPS, onboard calculator, VGA, etc. (page 5, lines 16-17). If these functions are represented at all in WALLACE, then they are represented by one or more of the blocks in the I/O layer 16 (Fig. 1A) and correspond with one or more of the processes 24. Presumably they are handled as any other process 24 and are not destroyed while other processes are suspended. There is no suggestion that some of the processes 24 are handled differently than others in this respect.


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While it is understood that two references have been cited in combination, still there must be some teaching or suggestion in one of them to handle the completion of motor vehicle control tasks differently than motor vehicle telematic tasks as claimed. Otherwise, a person of ordinary skill would assume that both kinds of tasks will be handled similarly by a single operating system! WALLACE appears to handle all tasks similarly, though not with the same priority, except for collision algorithm processes, which preempt all other tasks.

CONCLUSIONS

It is believed that all of the pending claims fully meet all of the requirements of 35 U.S.C. §112 and also distinguish readily over all of the cited art, when taken individually and in combination. Accordingly, allowance of the pending claims is believed to be in order and is respectfully solicited.

Respectfully submitted,

  
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Stephen C. Kaufman, Attorney  
Registration No. 29,551

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Stephen C. Kaufman  
IBM Corporation  
Intellectual Property Law  
T. J. Watson Research Center  
P.O. Box 218  
Yorktown Heights, NY 10598  
Telephone: (914) 945-3197  
Facsimile: (914) 945-3281